Data Analyzer Advances Training, 4/18/07
RIDE, Room 301D

Melissa was the trainer

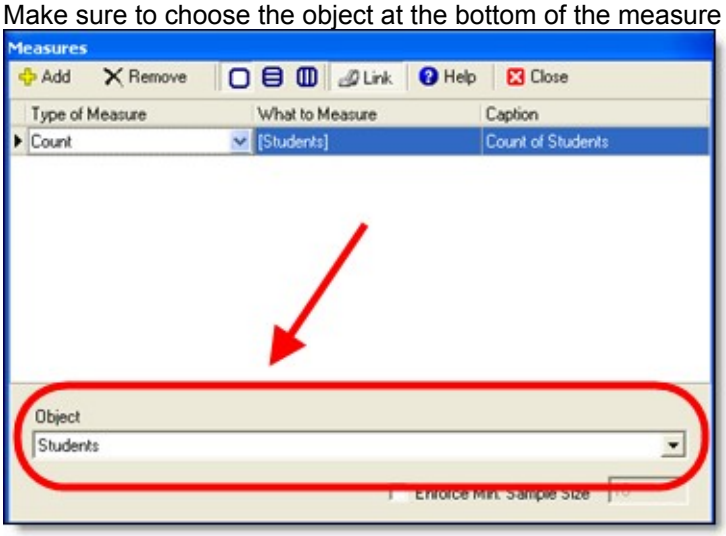
5 Steps to Building a Basic Query

1. Add a Note
    - Important when you share queries to avoid confusion and miscommunication
2. Set your Measure
    - Use a "count" most often when starting
    - "Sum" and "mean" are helpful when looking at Attendance and Testing
3. Set Time constraints
4. Pull Attributes and Members from Objects side panel
    - Enumerated attributes are finite and are listed out (e.g. Gender)
    - Non-enumerated attributes are variable (e.g. Student Names)
        - Working with the types of attributes are uniquely different
5. Run and Analyze

Miscellaneous Review

Set your measure

Make sure to choose the object at the bottom of the measure window



Saving as a Favorite

Before saving, select "Clear Data" from the Edit menu

Change Order of Attributes on an Axis

1. Right-click the attributes on an Axis and select "Edit Coordinates"
2. Use the edit coordinates window to adjust the order of the attributes

Distributions and Thresholds

For all intensive purposes, distributions and thresholds are similar and can be added and defined manually within the "Edit Coordinates" functionality

Distribution

A Distribution works well for enumerated values (e.g. scaled scores, days in attendance, etc.). It also works well for dates, such as exit dates within the Mobility object

1. Run the query to get some initial values
2. Increase the limit of coordinates
    1. Right-click the attributes on an Axis and select "Edit Coordinates"
    2. Change the number to a maximum number that will allow the query to return all possible values (e.g. 500)
    3. Re-run the query to capture all possible values
3. Right-click the attributes on an Axis and select "Edit Coordinates"
4. Click the distribution button
5. Adjust the minimum and maximum values
6. Set the number of intervals
7. You can check the "Add intervals for data that are above the maximum or below the minimum" to illustrate outliers
8. You can also manually adjust the distribution by editing the coordinates, manually setting the minimum and maximum, and then removing the extraneous coordinates
    1. **DO NOT TOUCH THE MATCH COLUMN!!!** There's a bug in the software that will cause it to freeze

Threshold

Setting a threshold is an excellent way to demonstrate scores that missed and made the cut

1. Run the query to get some initial values
2. Increase the limit of coordinates
    1. Right-click the attributes on an Axis and select "Edit Coordinates"
    2. Change the number to a maximum number that will allow the query to return all possible values (e.g. 500)
    3. Re-run the query to capture all possible values
3. Right-click the attributes on an Axis and select "Edit Coordinates"
4. Click the "Threshold" button
5. Adjust the minimum and maximum values
6. Set the "threshold value" or the cut

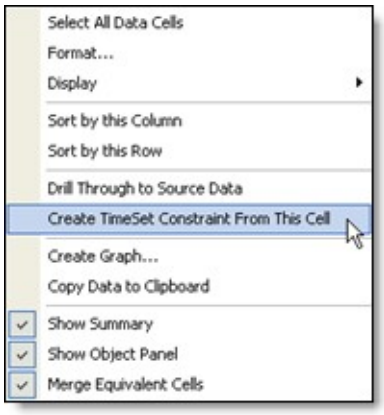
Longitudinal Analysis

Time Set Constraints

- Must have at least and ONLY one time period
    - Make sure to set a time period because the default is all time
- Criteria only applies to one cell, one circumstance
    - 04-05 6th graders who are IEP Y at Burrillville Middle School (50 students)
        - Then, look at how they did in the future (e.g. 05-06 NECAP Reading scores)
    - Can also look backwards, 05-06 6th graders IEP Y at BMS
        - What elementary schools did they come from?
- Can be used to define programs, teachers, teams and then look at how the students did earlier or later

- **Methodology**

1. Create query for initial circumstance/criteria
2. Run query
3. Right-click the cell with the data you want to freeze and choose "Create Time Set Constraint from Cell". Think of this step as defining a cohort



4. Select the object to constrain (define the members of the cohort)
5. Remove all attributes from the axises (the constraint is already providing the data set that you had defined with the attributes)
6. Change Time Set using the Calendar button on the toolbar. Deselect original time set and choose a new time set
7. Pull over entire attribute from Object sidebar
8. Run query

You can "nest" constraints, but it can take quite a while to run

TIP: if you need to include more than one cell in a time set constraint, use the "Edit Coordinates" function to combine values into one "distribution"

TIP: you can easily change the time set of a constraint by clicking the "Link" button on the toolbar and manually editing the values in the "Aggregation Constraints" window

TIP: naming conventions can be very helpful when saving and sharing queries. For instance, starting a query with "TSC" can indicate a Time Set Constraint

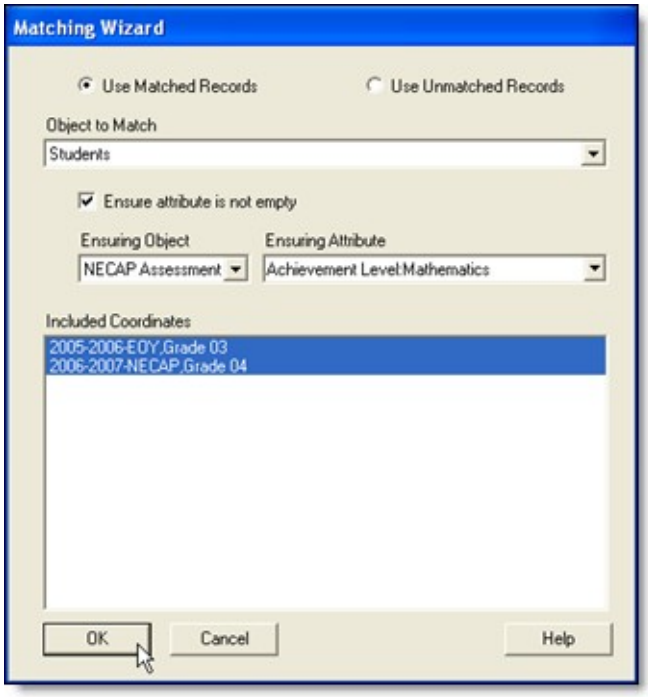
Matching Over Time

The cohort must match a set of criteria over time, truly a "matched cohort".
For instance, if you define that students must be in the 3rd grade in 03-04, 4th grade in 04-05 and 5th grade in 05-06, students who were retained will not match the criteria.
You could also add additional criteria, such as the students must also have valid NECAP math scores IN ADDITION to moving from grade to grade.
You MUST build in all the criteria that you need (for instance district name and possibly school name)

Methodology

1. Set the time set for all years involved
2. You MUST set the time sets to be on the ROWS (use button in time set window or drag to rows)
3. Add additional attributes and run the query. Place "ensuring attribute" on the columns
4. Use the CONTROL key to high light the values for the cohort. Right-click on the highlighted cells and select "Isolate"
5. Choose "Matching Wizard" from the Edit menu
6. In the Matching Wizard window, set "Objects to Match" to Students (build the cohort)
7. Check the "Ensure the attribute is not empty" checkbox
8. Choose "Ensuring Object" (e.g. NECAP Assessment) and "Ensuring Attribute" (e.g. NECAP Math Achievement Level)

9. Control-click to highlight all the "Included Coordinates"
10. Click "OK"



11. Re-run query

TIP: Right-click on the column heading and select "Include All Coordinate" to show a total column which is great for error-checking

Time Set Limits

Great for assessments from one year to the next.
You can also compare multiple assessments (e.g. Reading in 05-06 vs. Math 05-06)

Methodology

1. Set measure
2. DON'T SET TIME SET
3. Pull over attributes and place on separate axises
4. Right-click on an attribute and select "Time Set Limits"
    1. Choose "Students" as the object
    2. Set the Time set for that attribute
5. Repeat Step 4 FOR EVERY ATTRIBUTE
6. Run the query